Cadastral reform for sustainable land redistribution in Zimbabwe

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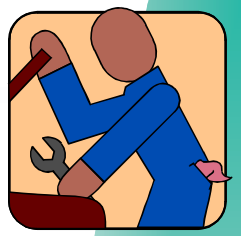
Presentation Overview

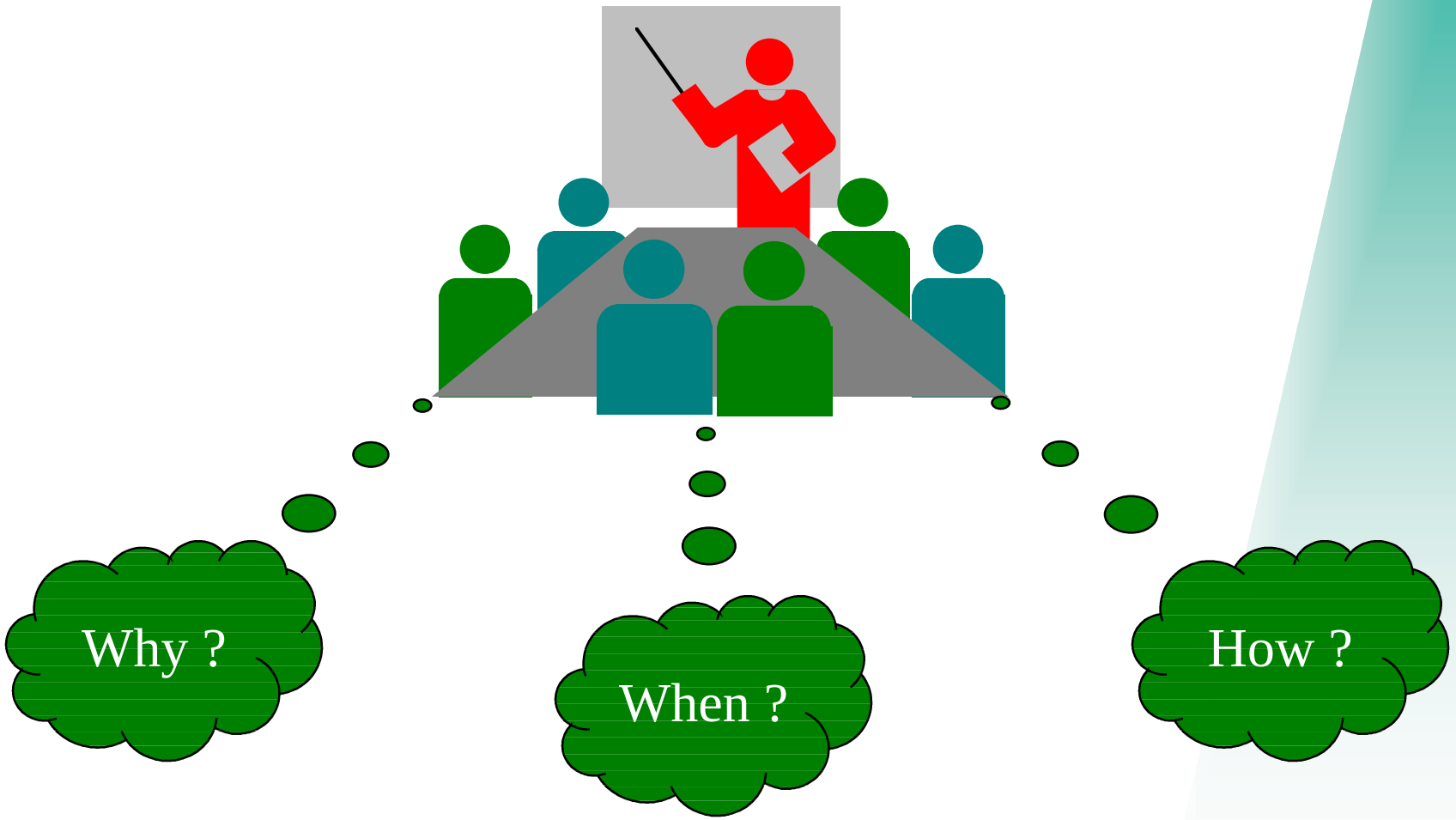


- Cadastral reform
- Why, When and How ?
- Cadastral processes in Zimbabwe
- Justification for reform
- Attention areas and Concluding Remarks

Major arguments in the presentation

- Need to develop an integrated vision and strategy
- impact of global drivers :- economic reform, globalisation, urbanisation and technology can not be ignored.
- Land reform processes are intimately linked to cadastral institutions.
- “If cadastral reform is not initiated, there are risks of a degraded cadastre, inefficient practices, overpriced surveys and an inability to fully utilise new technologies“(Smith, 1990)
- Process, Performance Modelling, Simulation and Benchmarking are important assessment tools which could be used to check on progress.

Cadastral Reform

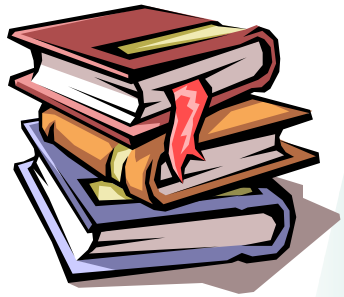


Justification for Cadastral Reform

efficiency

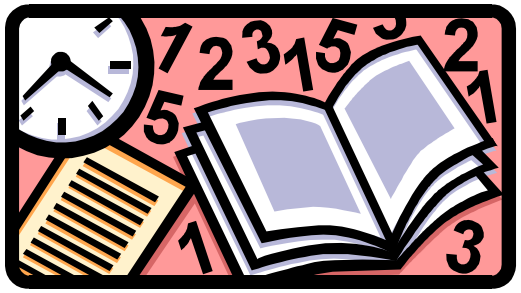
speed

cost

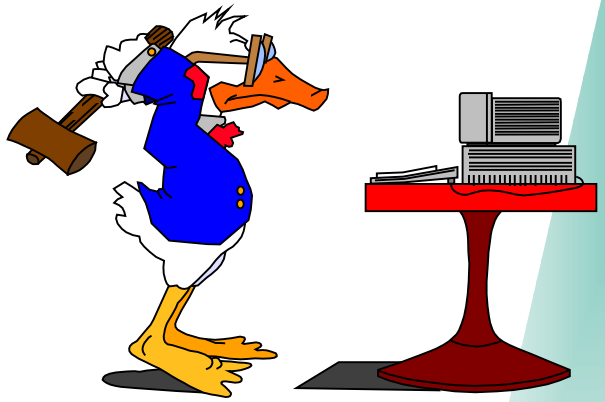


support for the land market

When to conduct cadastral reform?



On going exercise



Processes fail to meet expectations

Need for a holistic view

A possible starting point …..

Process Modelling and Simulation

Performance Evaluation

Benchmarking

Cadastral Processes in Zimbabwe

Key Institutions

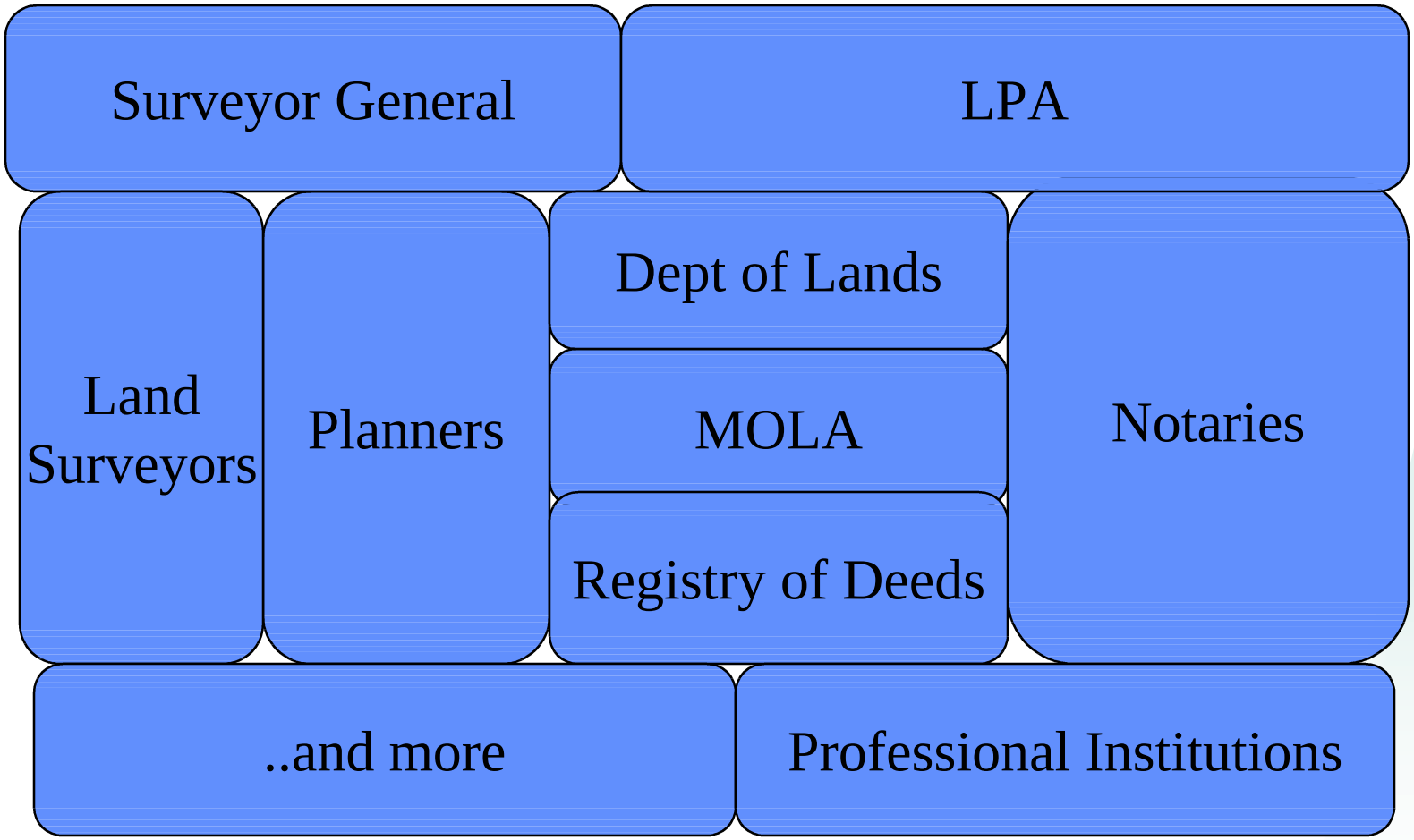
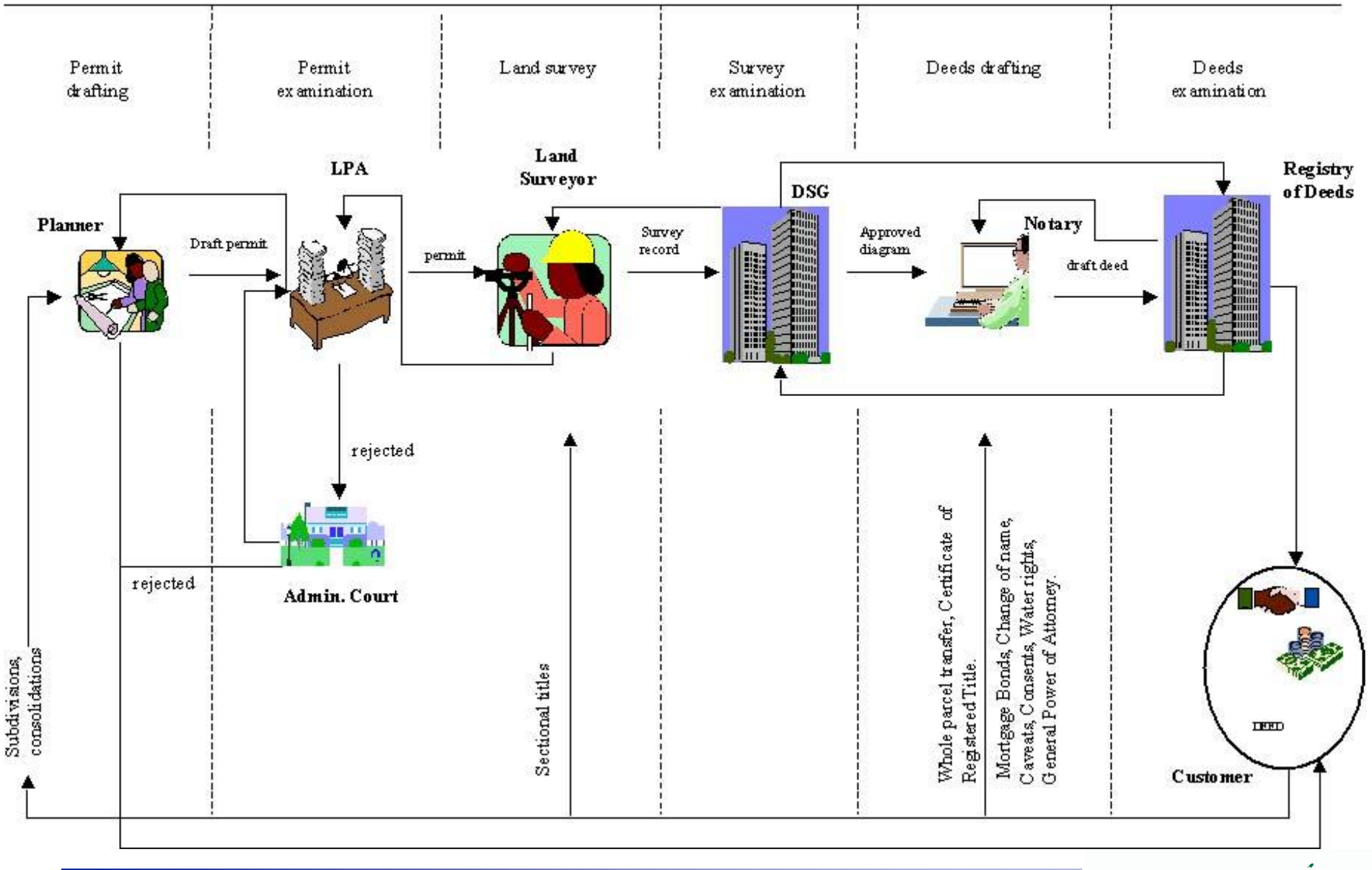
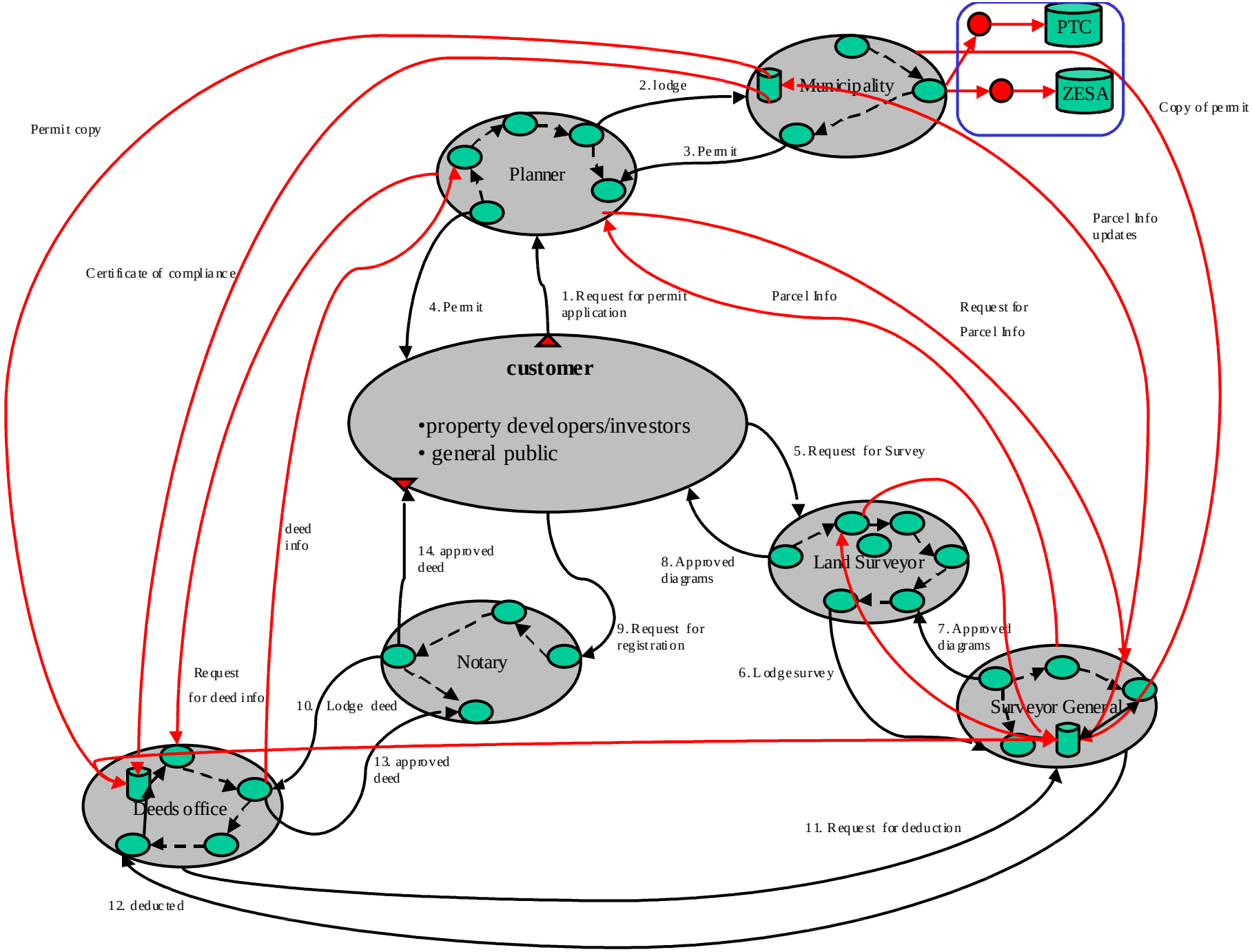


Figure 1.1 The existing cadastral processes in Zimbabwe.



Subdivision ……
an important process



Existing Data flows

Processing a subdivision involves :-

6 different organisations.

Minimum of 14 data flows and 40+ activity steps.

3 quality check stations with high rejection chances 50%, 80% and 40%.(Sept 2000)

3 interaction points between the process and the end customer.

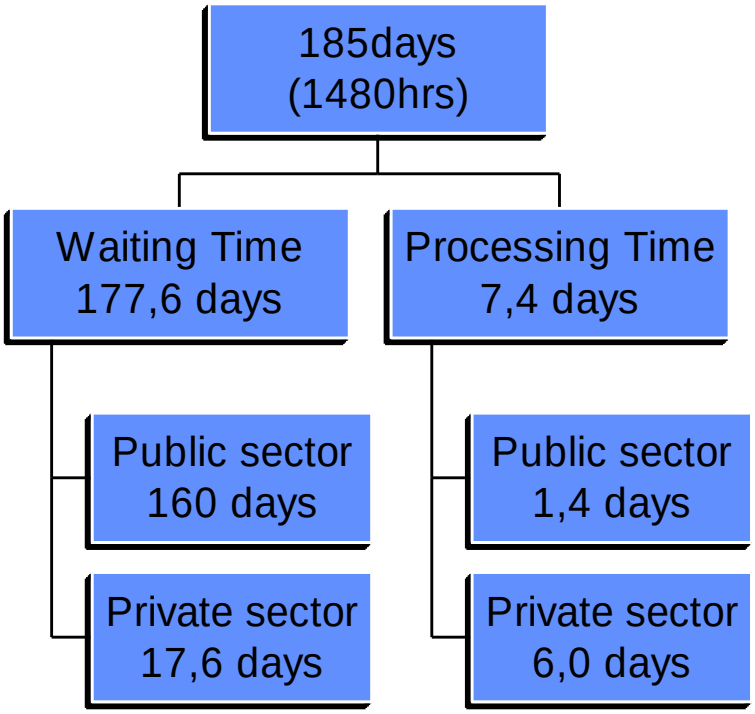
Performance of Subdivison Evaluated in terms of :

Response time

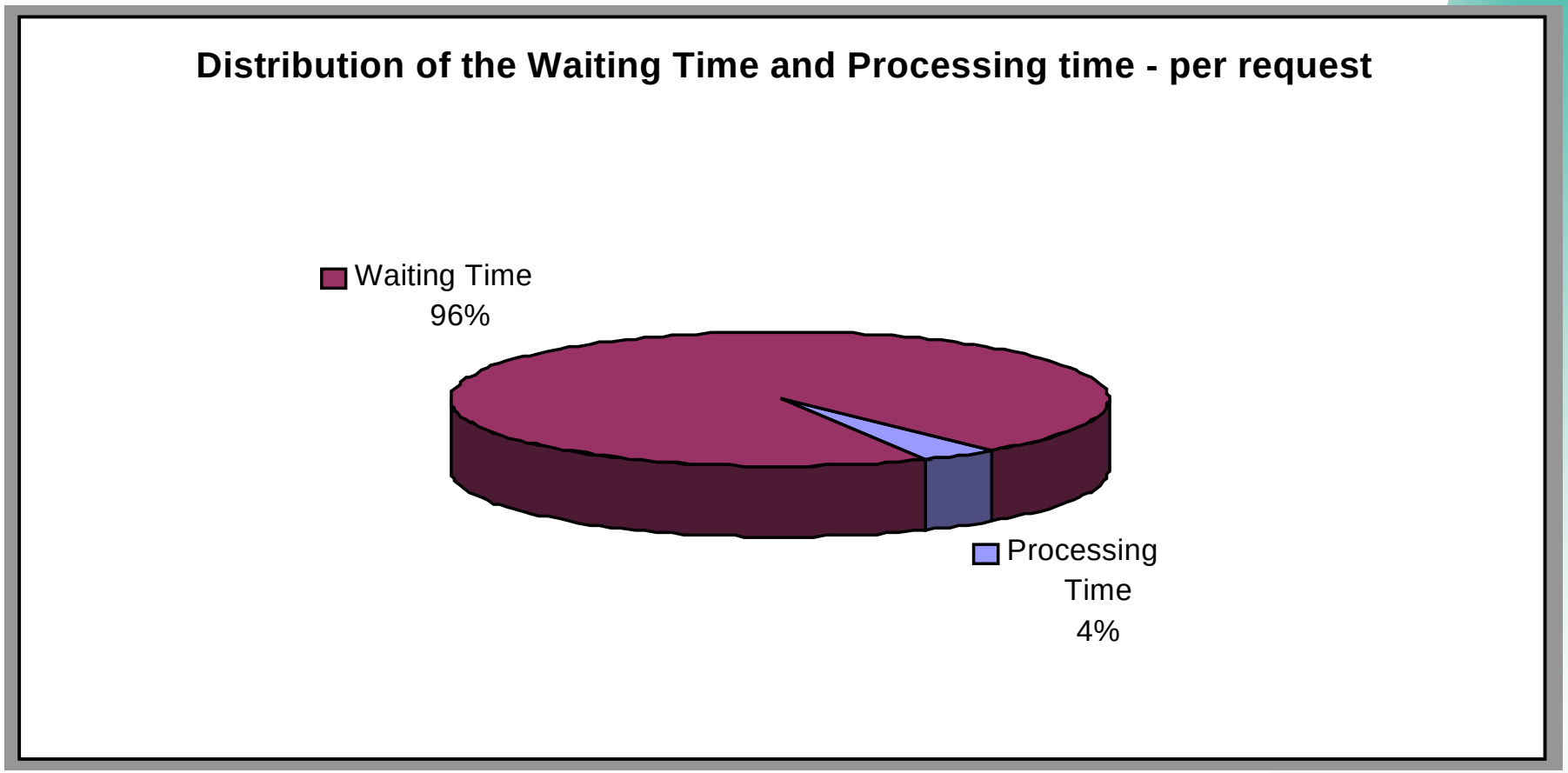
cost

Response Time (Sept 2000)

Average response time per request



Distribution of Response Time (Sept 2000)



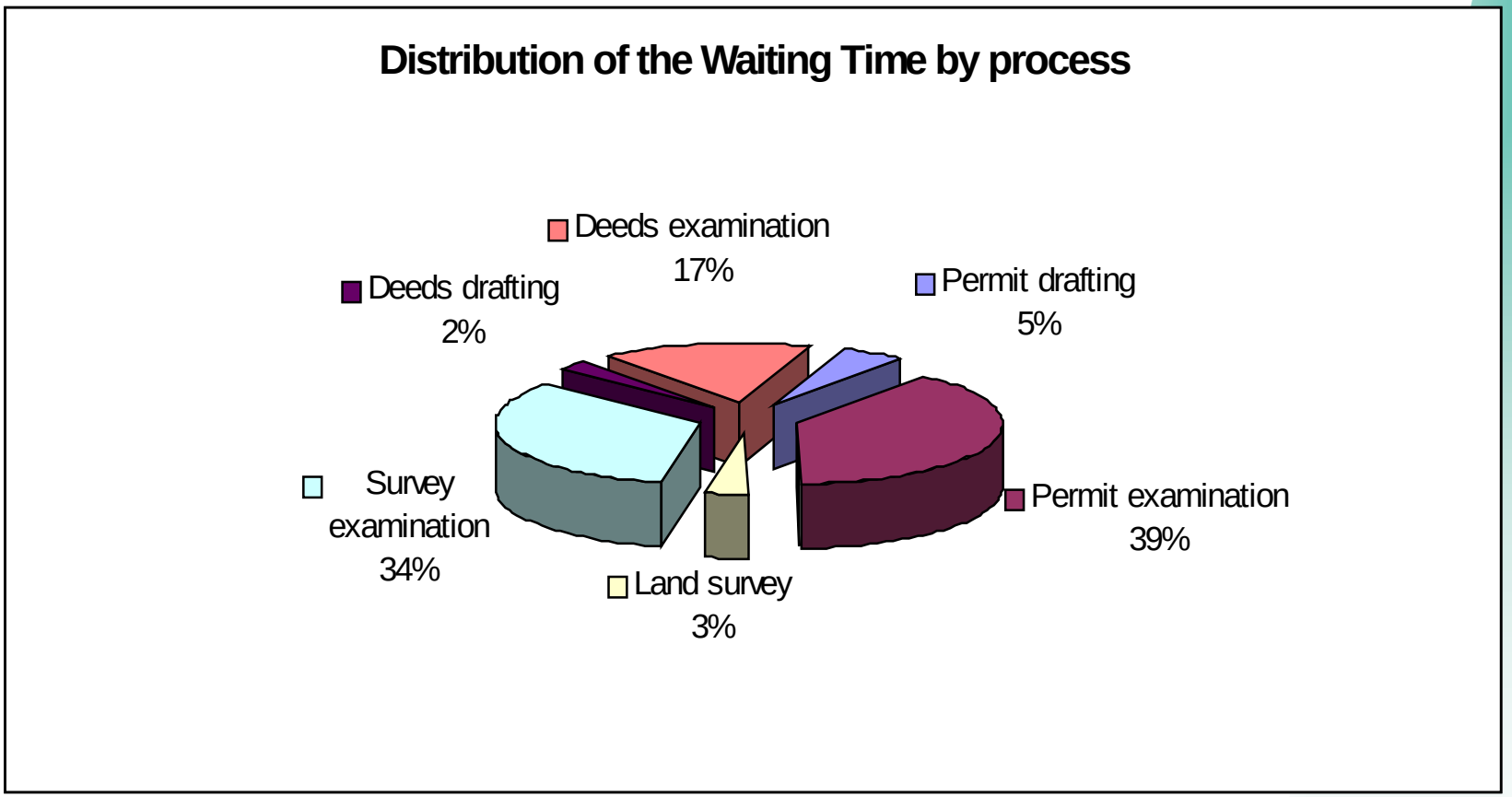
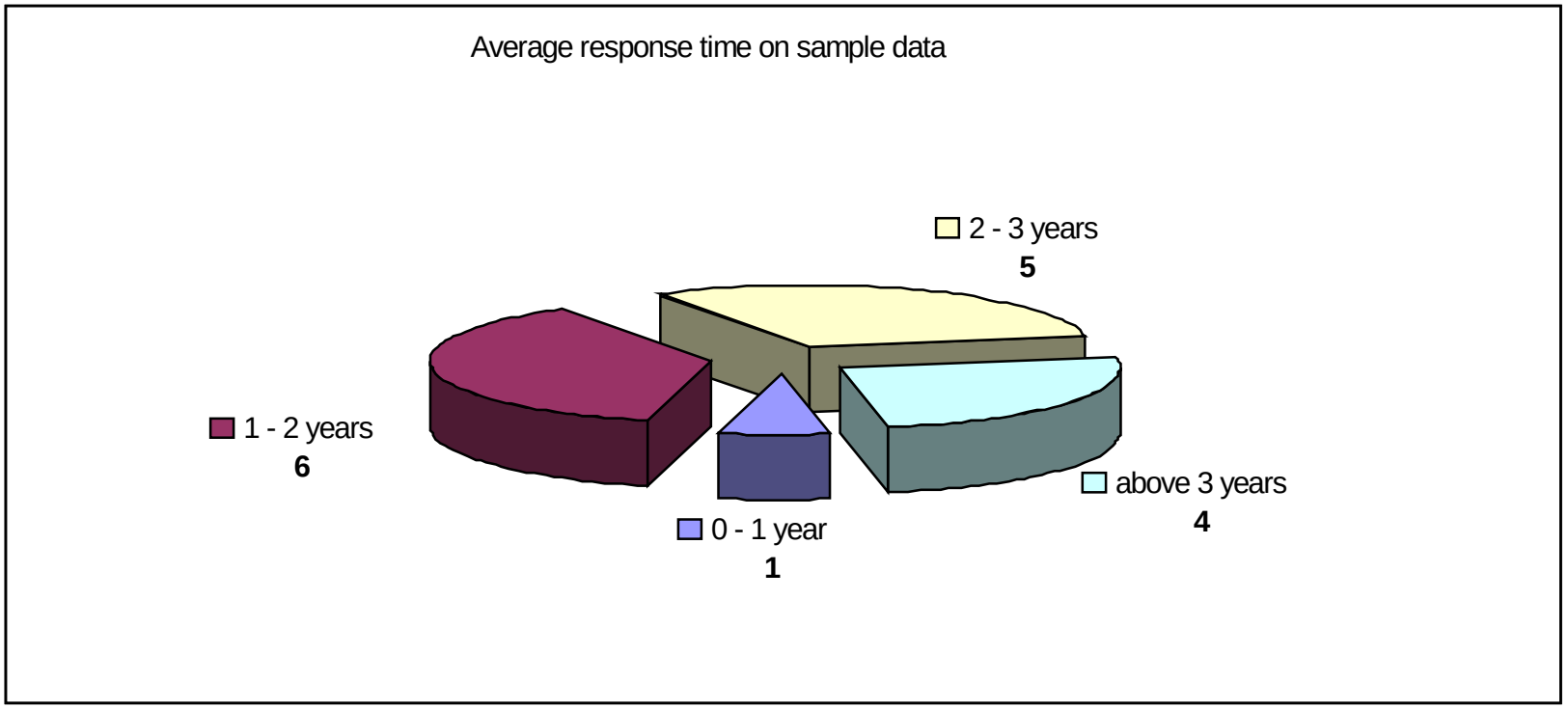


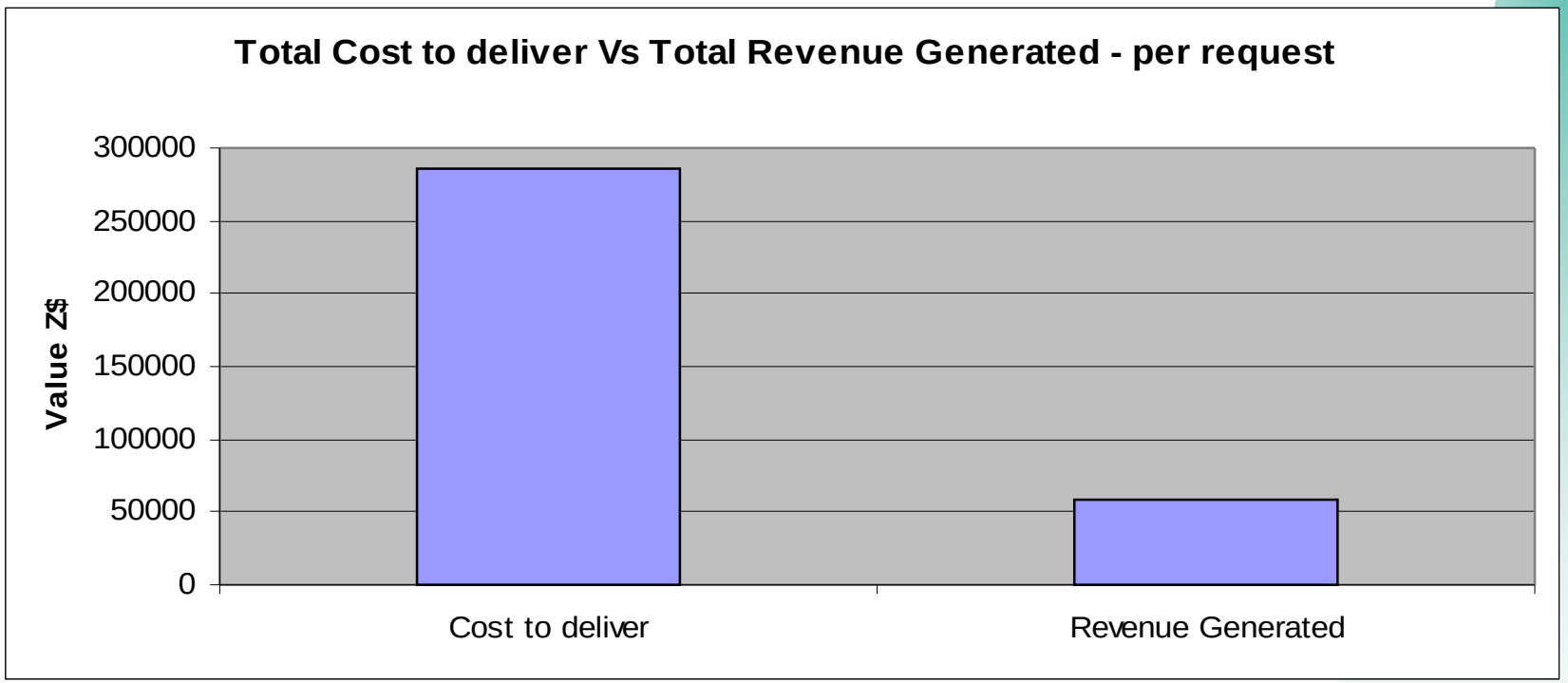
Figure 4.12 Distribution of the waiting time by process

Response Time on Sample data



Response time on sample data.

Costs Results (Sept 2000)



Conversion Factor : Z $ 50.00 = 1.00 US $

Cost results explained

Process	Cost	Benefit
Complete Process	$ 4,83	$1,00
Public Sector	$120,00	$1,00
Private Sector	$0,83	$1,00

Public sector incurs 83% of process costs and generate 5 % of the revenue.

Challenges confronted

- **Process dynamics vs time**
- **Workload Characteristics vs Processing Capacity**
- **Institutional constraints**
    - holistic vs. isolated strategies
    - Strategic Partnerships
    - Reengineering, Benchmarking
    - Selection of a lead agency
- **Capacity problems**
- **Coordination of donor funded projects**
- **Quality management issues**
- **Legislative constraints**

Workload Characteristics

Input / Output assessment

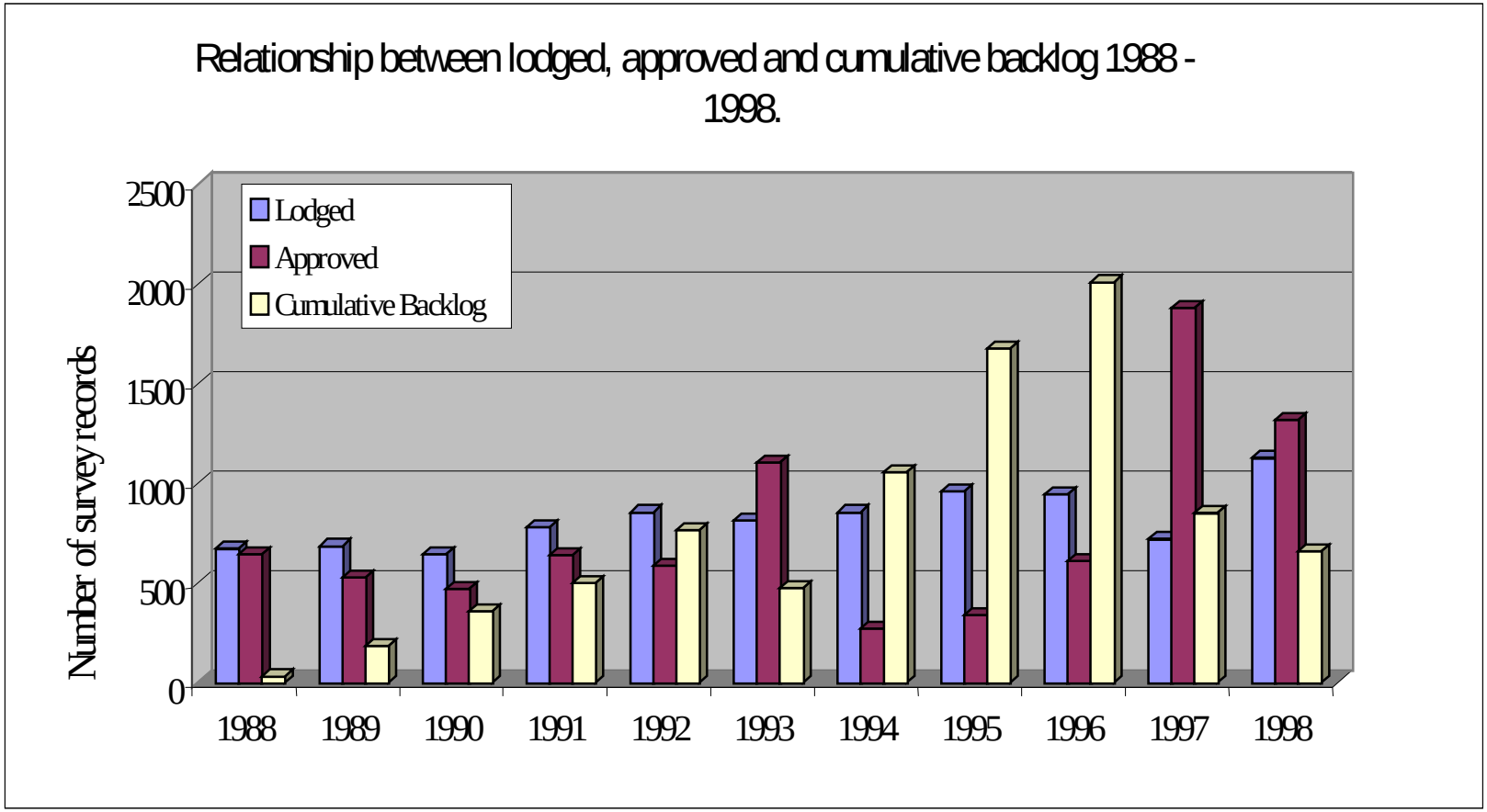


Figure 4.16 Relationship between lodged, approved and cumulative backlog 1988 - 1998

Alternatives Explored

- Eliminating non value adding activities.
- Introducing a work flow agent.
- Changing the order of process execution.
- Risk Management procedure/Liability.
- Adopting a GDI approach.

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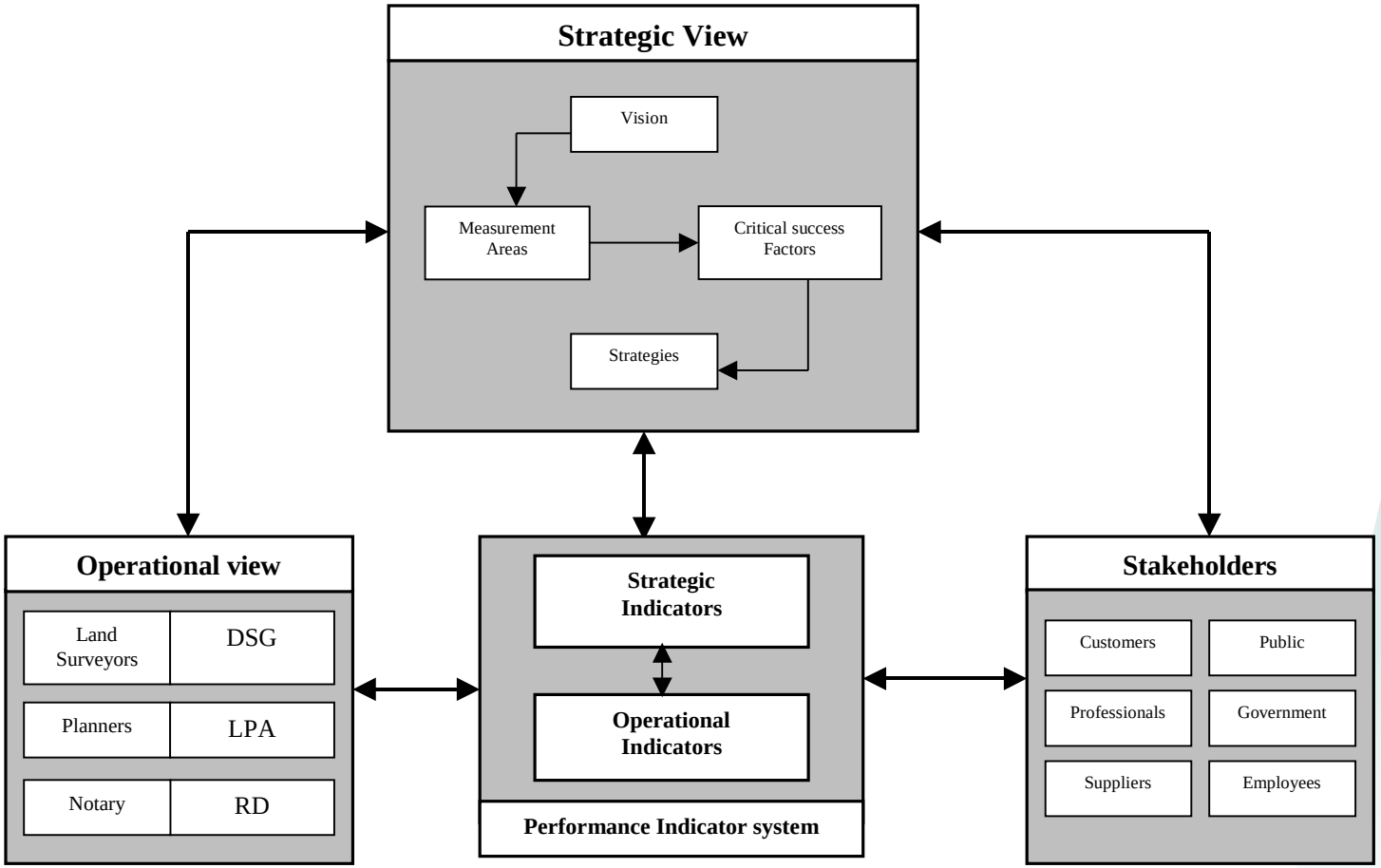
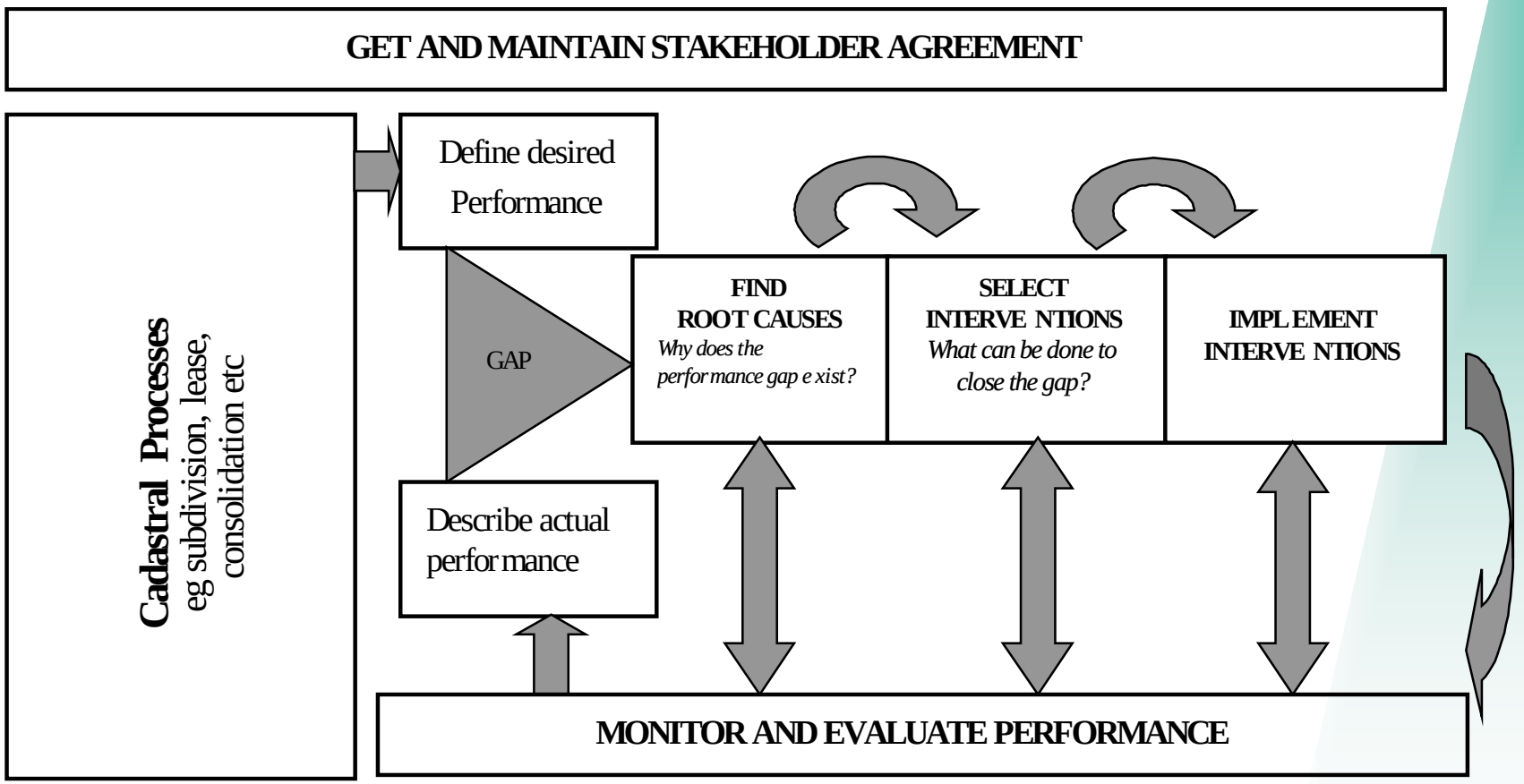
Way forward:
Some Suggestions

1. Integrated strategy



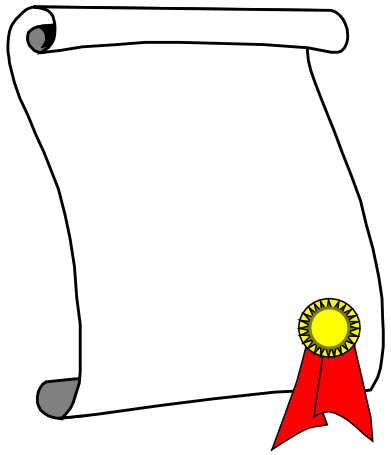
Linking up existing operations, strategy, stakeholders and performance measurement

2. Continuous Benchmarking



Concluding Remarks

- **Cost and time implications of subdividing land cannot be ignored**
- **Need for a Stakeholders forum**
- **Need to Benchmark processes**
  - against best in class
  - against regional partners
  - against International partners
- **Process Modelling, Performance Evaluation are useful tools in operations management and reform.**



Thank You

Experiment

- tour of the cadastral production line was conducted – subdivision product selected
- Professional estimates of time and costs (norms) were collected.
- Check against sample data.
- Process Modelled and Simulated in Oracle Designer.

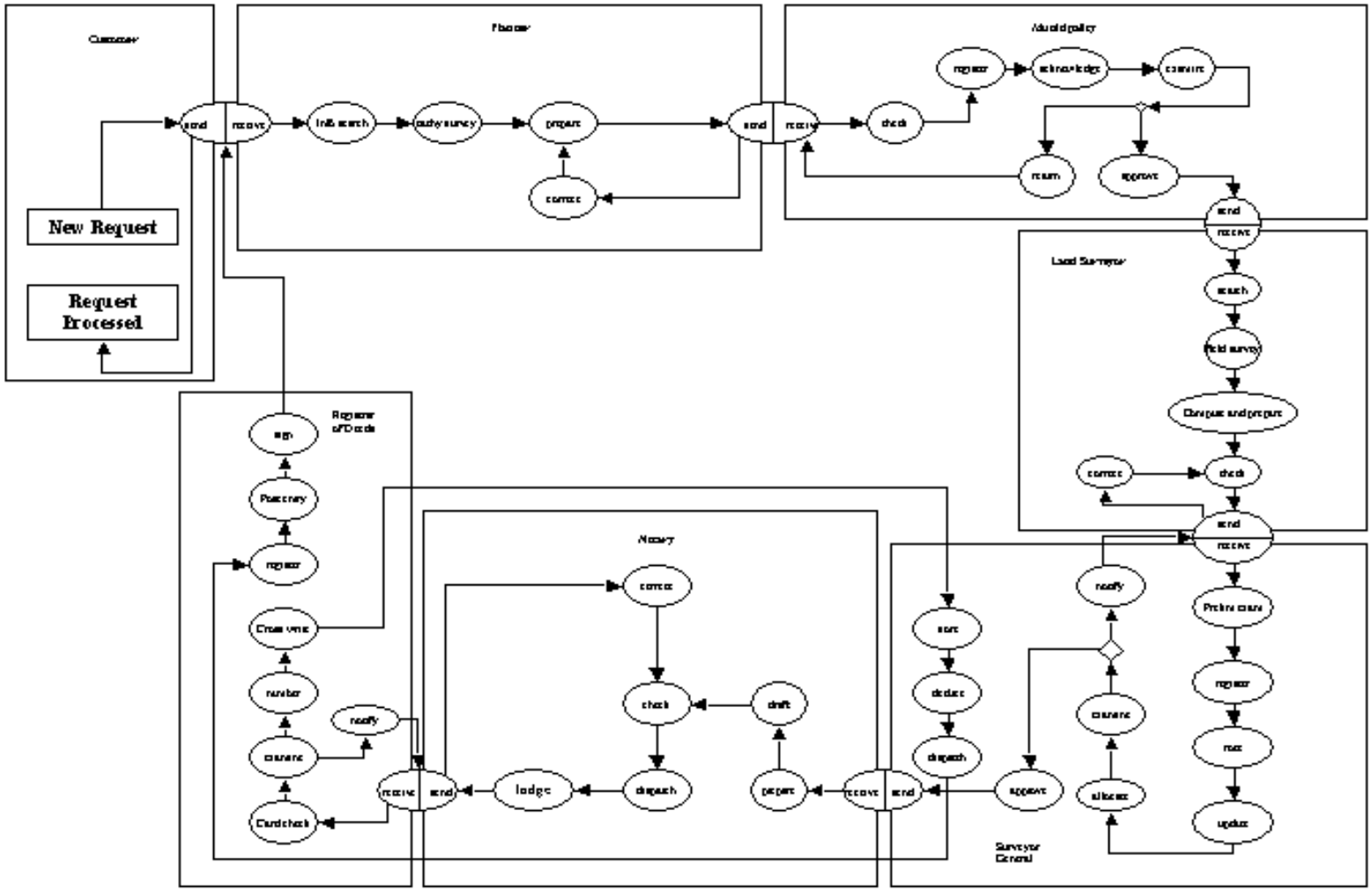


Figure 3.2 The detailed subdivision process

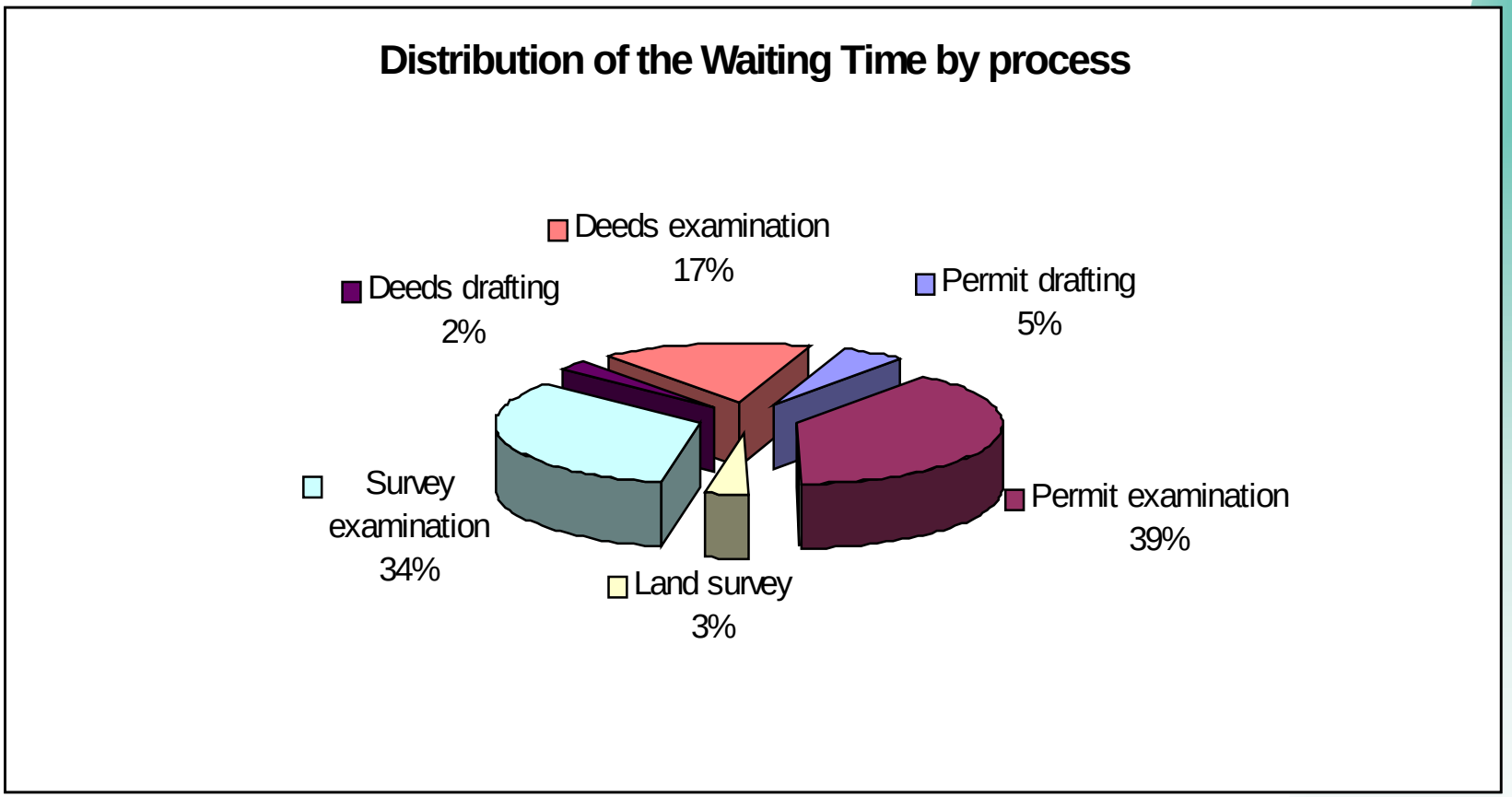


Figure 4.12 Distribution of the waiting time by process

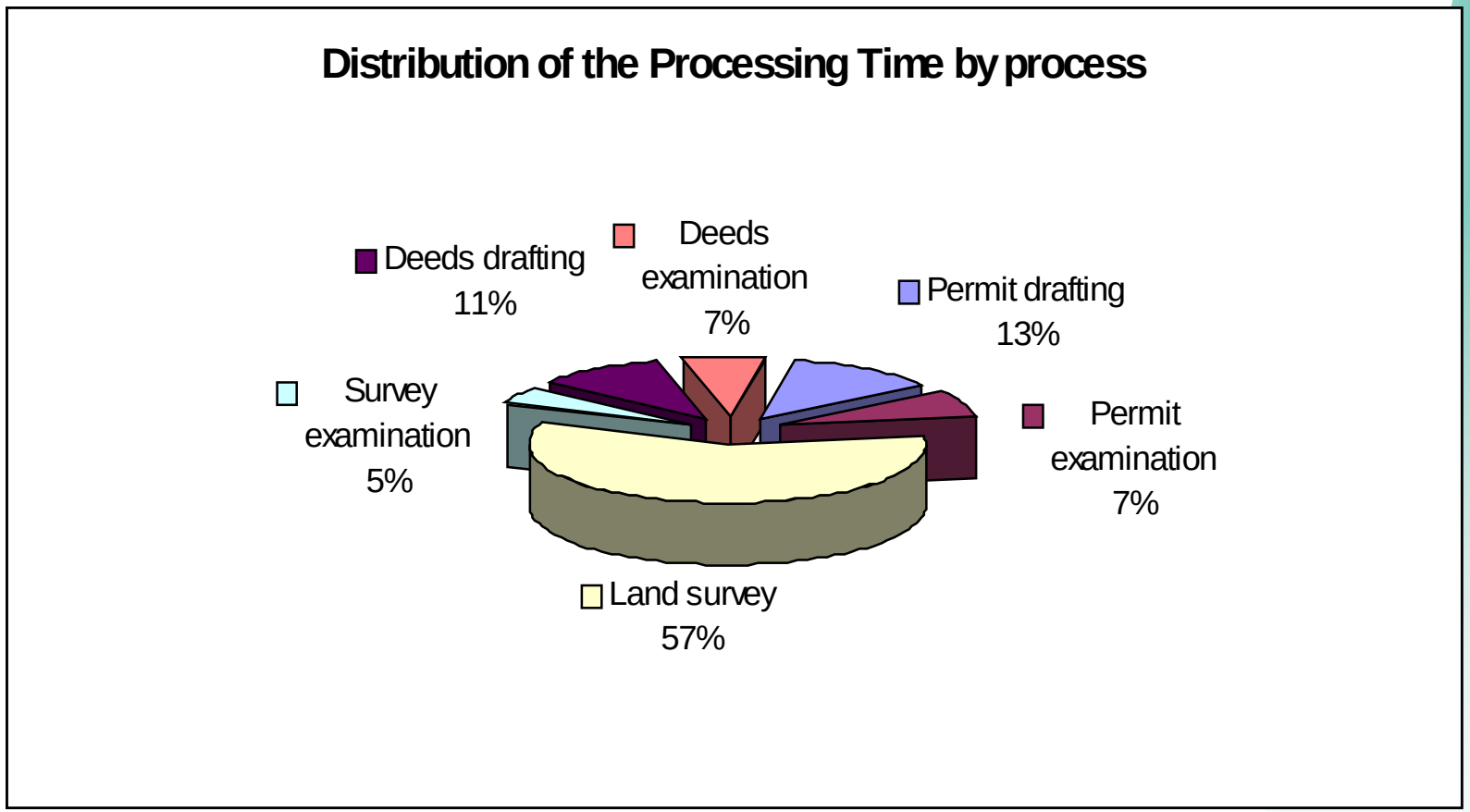


Figure 4.13 Distribution of the Processing Time by process

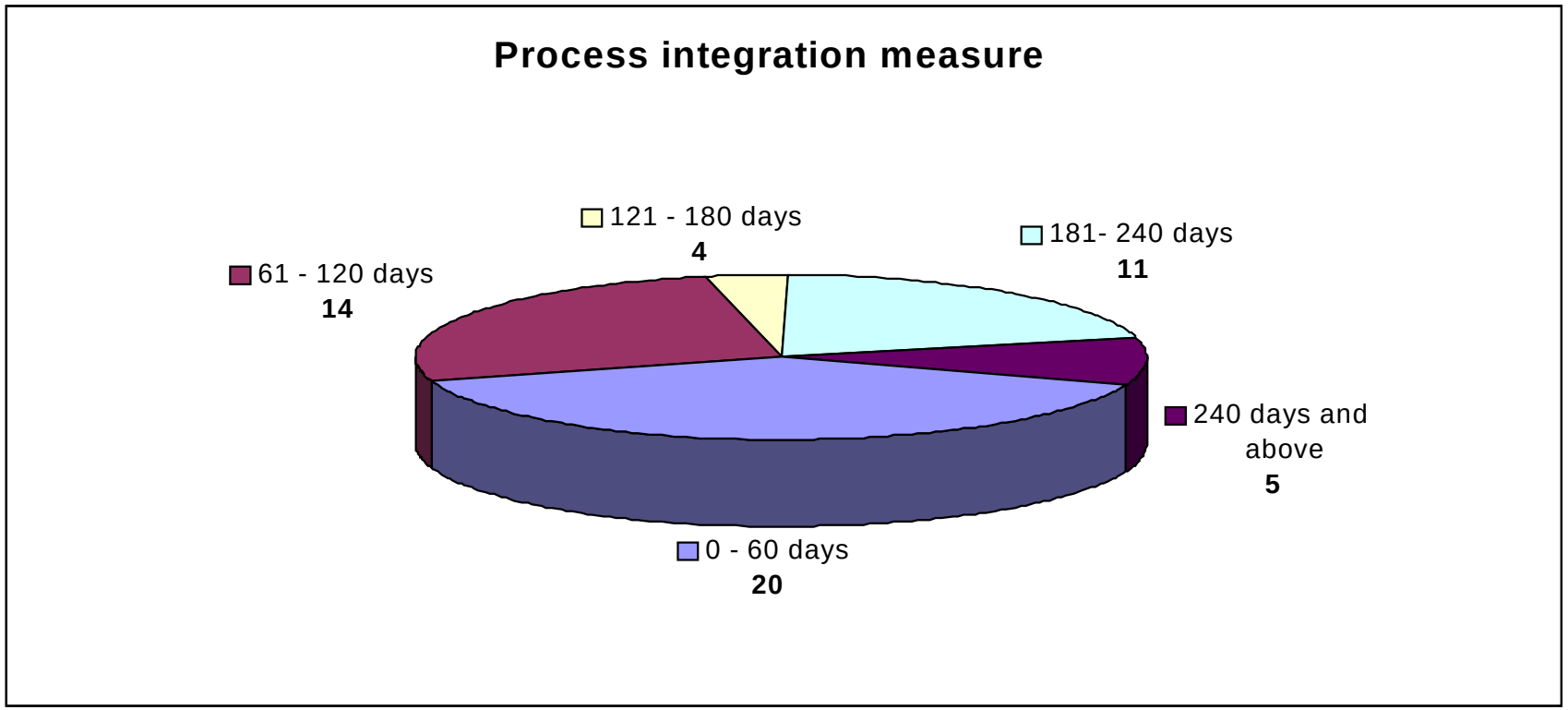


Figure 4.17 Process integration measure – Permit examination *send* to Land survey *receive.*

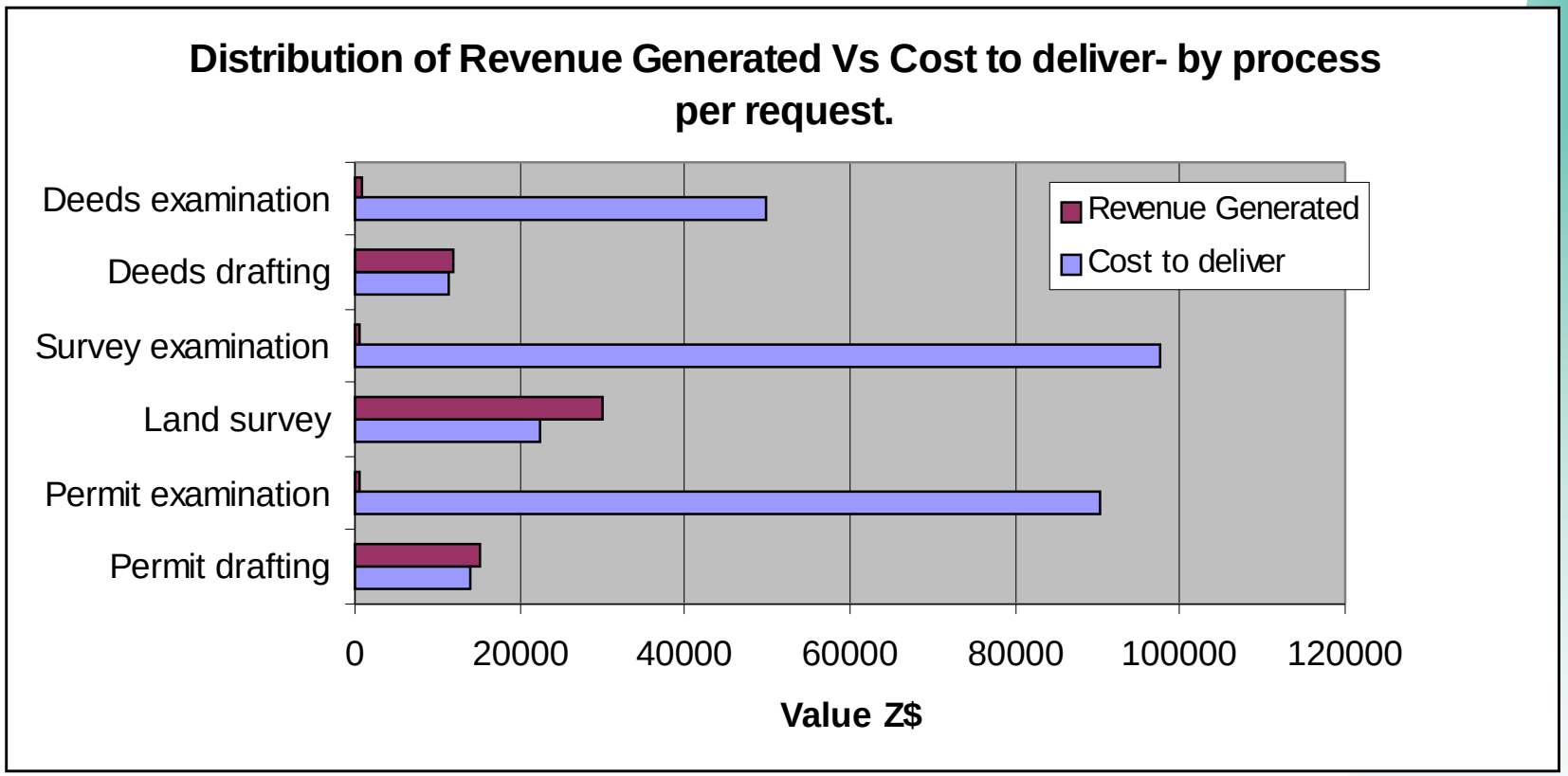


Figure 4.19 Distribution of the Revenue generated vs. Cost to deliver by process.

Organisation	Ratio of Cost to Benefit
Planner	0.93
Municipality	180.71
Land Surveyor	0.75
Department of the Surveyor General	122.00
Notary	0.94
Registry of Deeds	50.46

Table 4.3 A comparative analysis of Cost/Benefit - per organisation - per request

Checkpoint	Failure cost (as % of total revenue generated)
Permit	9
Survey	44
Deed	11

Table 4.4 Failure cost as % of total revenue

Adopting A GDI approach

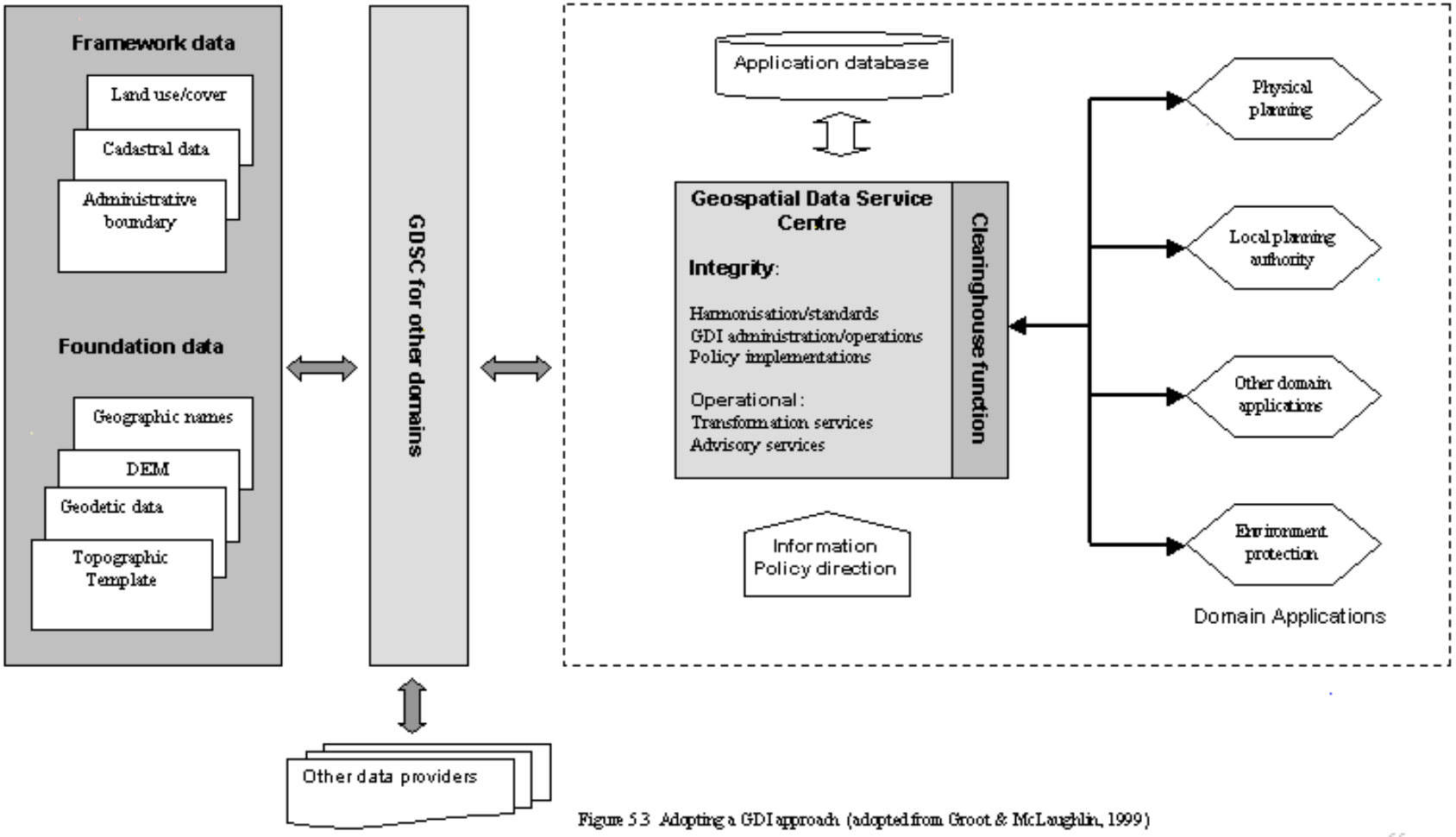


Figure 5.3 Adopting a GDI approach (adopted from Groot & McLaughlin, 1999)